

# XenServer 7.4 Release Notes

Welcome to XenServer 7.4. This document provides important information about the XenServer 7.4 release.

XenServer 7.4 is a Current Release (CR). The Current Release model allows customers to consume new features at the earliest possible juncture. This contrasts with the Long Term Service Release (XenServer 7.1 LTSR), which guarantees stability in terms of the feature set within XenServer.

XenServer 7.4 is available in the following editions:

- Enterprise Edition
- Standard Edition
- Free Edition

For information about the features available in each edition, see the [XenServer Feature Matrix](#).

XenServer 7.4 is available to download from the [XenServer Product Download page](#).

## New Features and Improvements in XenServer 7.4

XenServer 7.4 introduces enhanced features and functionality for application, desktop, and server virtualization use cases. All features are available to all licensed XenApp/XenDesktop customers.

### **vGPU XenMotion**<sup>Enterprise Edition</sup>

You can migrate VMs with vGPUs between hosts without shutting the VMs down, allowing administrators to take advantage of XenMotion with vGPUs attached.

vGPU XenMotion is available upon release of supported software and graphics cards from GPU vendors (see the [Hardware Compatibility List](#)).

In addition to XenMotion, Storage XenMotion and VM suspend with vGPUs attached have also been enabled in this release for VMs using supported software and graphics cards.

### **AMD MxGPU**<sup>Enterprise Edition</sup>

With the addition of support for AMD's virtualized graphics solution, XenServer continues its leadership in the virtualized graphics domain.

XenServer customers can use AMD MxGPU on provided by the AMD FirePro S7100-series GPUs. Please see the list of supported hosts on the [Hardware Compatibility List](#).

For more information, see [Configuring Citrix XenServer 7.4 for Graphics](#).

## XenServer Entitlement for Citrix Cloud XenApp and XenDesktop Service Subscribers

If you have a Citrix Cloud XenApp and XenDesktop Service subscription that enables the use of on-premises Desktops and Apps, you are entitled to use XenServer for hosting these Desktops and Apps.

XenServer 7.4 enables the required licensing to use this feature. With this license you can use all of the same premium features as with an on-premises XenApp and XenDesktop entitlement.

Download a license through the [licensing management tool](#). Install this license on your License Server to use on-premises XenServer with your XenApp and XenDesktop Service subscription.

## Installation Options

XenServer 7.4 is available to download from the XenServer Product Download page in the following packages:

- XenServer 7.4 Update ISO. Use this file to update an existing installation of XenServer 7.3 CR.
- XenServer 7.4 Base Installation ISO. Use this file to create a fresh installation of XenServer 7.4 or to upgrade from XenServer 6.2, 6.5, 7.0, 7.1 Cumulative Update 1, or 7.2.

### Please note:

- If you use XenCenter to update your hosts, you must update your XenCenter installation to the latest version supplied on the XenServer 7.4 download page before beginning.
- Always update the pool master before updating any other hosts in a pool.

The following table shows the available options when moving from an existing version of XenServer to XenServer 7.4.

Installed Version	Update using XenServer 7.4 Update ISO	Upgrade using XenServer 7.4 Base Installation ISO
XenServer 7.3	Yes	No
XenServer 7.2	No	Yes
XenServer 7.1 CU 1	No	Yes
XenServer 7.0	No	Yes
XenServer 6.5	No	Yes
XenServer 6.2	No	Yes

Upgrading from XenServer 7.1 without CU 1 applied is not supported. Ensure that you update your XenServer 7.1 to the latest Cumulative Update before upgrading to XenServer 7.4.

Before beginning installation, review the system requirements and installation instructions detailed in the [XenServer 7.4 Installation Guide](#).

## Changing from the Long Term Service Release to the Current Release

If you're running a XenServer LTSR, but want to take advantage of new features, you can decide to change to the XenServer CR stream. Using the XenServer versions from the CR stream requires you to adopt new CRs regularly to remain in support.

Move to this Current Release by upgrading from XenServer 7.1 CU 1 LTSR.

## Changing from the Current Release to the Long Term Service Release

If you're running a XenServer CR, but instead want to move to a version of XenServer with a guaranteed and stable feature set, you can change to a XenServer LTSR. The latest XenServer LTSR is available to download from the XenServer Product Download page.

Move to the latest LTSR by creating a fresh installation of XenServer 7.1 CU 1 LTSR.

For more information about LTSRs and CRs, see [XenApp, XenDesktop, and XenServer Servicing Options](#).

## Licensing

Customers should upgrade their Citrix License Server to version 11.14 or higher in order to use all XenServer 7.4 licensed features.

For more information about XenServer 7.4 licensing, see [XenServer 7.4 Licensing FAQ](#).

## Interoperability with Citrix Products

XenServer 7.4 is interoperable with Citrix XenApp/XenDesktop 7.15 (LTSR), and 7.17.

XenServer 7.4 is interoperable with Citrix PVS 7.15 and 7.17.

## Localization Support

The localized version of XenCenter (Simplified Chinese and Japanese) is also available in this release.

## Product Documentation

To access XenServer 7.4 product documentation, see [XenServer 7.4 Product Documentation](#). For frequently asked questions about XenServer, see [XenServer 7.4 Technical FAQ](#).

Documentation can be updated or changed after the initial release. We suggest that you regularly visit the [XenServer 7.4](#) page on [Citrix Product Documentation](#) to learn about updates.

## Advisories and Known Issues

The following section details advisories and minor issues with this release and any workarounds that you can apply.

### General

- For Intel Xeon 81xx/61xx/51xx/41xx/31xx CPU-based systems, we strongly recommend that you run XenServer in UEFI boot mode, not legacy boot mode.
- If a pool's CPU feature set changes while a VM is running (for example, when a new host is added to an existing pool, or when the VM is migrated to a host in another pool), the VM will continue to use the feature set which was applied when it was started. To update the VM to use the pool's new feature set, you must power off and then start the VM. Rebooting the VM, for example, by clicking 'Reboot' in XenCenter, does not update the VM's feature set.
- Renaming a container does not trigger the Container Management view to update. Additionally, on Ubuntu 14.04, the pause or unpause of a container from outside XenCenter does not trigger the view to update. This may mean that XenServer may not show the current (renamed/paused/unpaused) container-status. The underlying cause is that the view only gets refreshed following Docker event notifications. As a workaround, trigger the refresh manually by performing an action (that is, start, stop) on an unrelated container that is running on the same VM.
- Do not assign more than 32GB of memory to Dom0, as otherwise intermittent VM freezes can occur, often during boot of VMs.
- When you add a host to a pool as a slave, the performance alerts stop working. If this happens you can use the xe CLI to configure the performance alerts on the slave after it has joined the pool. For more information, see the *Citrix XenServer Administrator's Guide*.

### Graphics

- If you migrate a Windows 10 VM with a vGPU attached, a Timeout Detection and Recovery (TDR) can occur after the migration. The TDR is caused by Windows treating the downtime during migration as a timeout in GPU operations.

This issue can be resolved by modifying how Windows tracks time during a migration by disabling two of the Viridian enlightenments:

```
xe vm-param-set uuid=<vm-uuid> platform:viridian_reference_tsc=false
xe vm-param-set uuid=<vm-uuid> platform:viridian_time_ref_count=false
```

### Internationalization

- Non-ASCII characters, such as characters with accents, cannot be used in the host console.
- XenServer root passwords must not contain non-ASCII characters.
- In a Windows VM with XenServer Tools installed, copy and paste of double-byte characters can fail when using the default desktop console in XenCenter. The pasted characters are displayed as question marks (?).  
To work around this issue, you can use the remote desktop console instead.

## Hardware Compatibility

- Refer to the XenServer [Hardware Compatibility List \(HCL\)](#) for the most recent additions and advice for all hardware compatibility questions.

## Storage

- When using Nutanix SRs, the two VDIs (previously used for the HA statefile and pool metadata) that remain after disabling HA will not be reused if HA is subsequently re-enabled. Customers can safely delete these VDIs.

## Networking

- In some cases, booting a XenServer host from an FCoE SAN using the software FCoE stack can cause the host to become unresponsive due to a temporary link disruption in the host initialization phase. If the host appears to be in an unresponsive state for a long time, reboot the host to resolve this issue.
- XenServer does not prevent users from unplugging a NIC used by the FCoE SR.

## XenCenter

- Modifying the font size or DPI on the computer on which XenCenter is running can result in the user interface displaying incorrectly. The default font size is 96 DPI; Windows 8 and Windows 10 refer to this as 100%.

## Guests

- XenServer's use of new hardware security features may reduce the overall performance of 32-bit PV VMs. Customers impacted by this issue can either:
  - Run a 64-bit version of the PV Linux VM, or
  - Boot Xen with the `no-smep no-smap` options. Note that we do not recommend these options as they can reduce the depth of security of the host.
- VMs running on AMD EPYC hardware might crash if the VM attempts to use mitigations for CVE-2017-5715 (Spectre variant 2).
- The console screen on HVM Linux guests can go blank after a period (typically ten minutes) of inactivity. You can work around this issue by adding `consoleblank=0` to the kernel boot parameters of the guest. Consult your guest OS documentation for information about updating the kernel boot parameters.
- After changing the streamed vDisk, the PVS Accelerator cache stays in the 'Initialized' state and doesn't move to the 'Caching' state. A VM with changed vDisk will be cached again after the VM has been powered-off completely and started again.
- After migrating a VM using NVIDIA vGPU XenMotion the guest VNC console might become corrupted. Use ICA, RDP, or another network-based method for accessing VMs after a vGPU XenMotion has been performed.
- If you restart your VM during installation of the XenServer tools, some driver installs might not complete. Ensure all Tools installations are complete before restarting your VMs.



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